

E. BUZBY.
Pumps.

No. 155,923.

Patented Oct. 13, 1874.

Fig. 1.

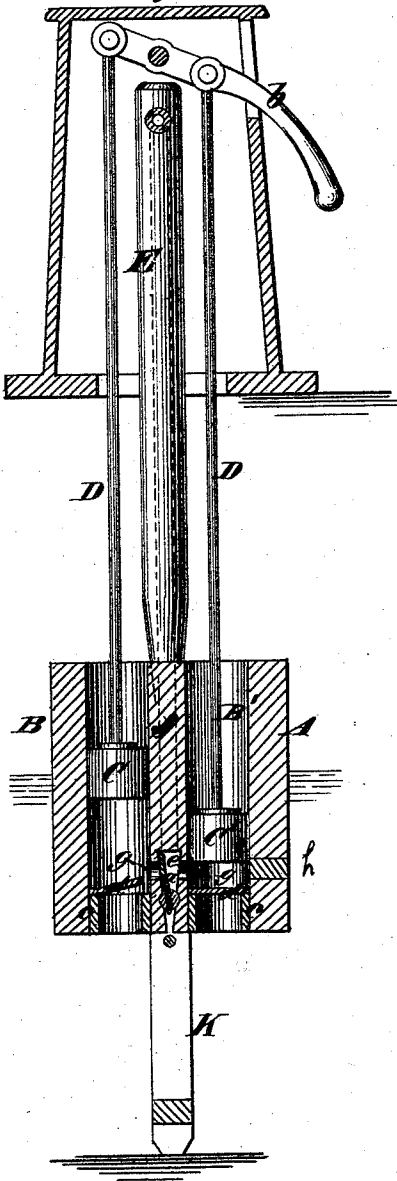


Fig. 2.

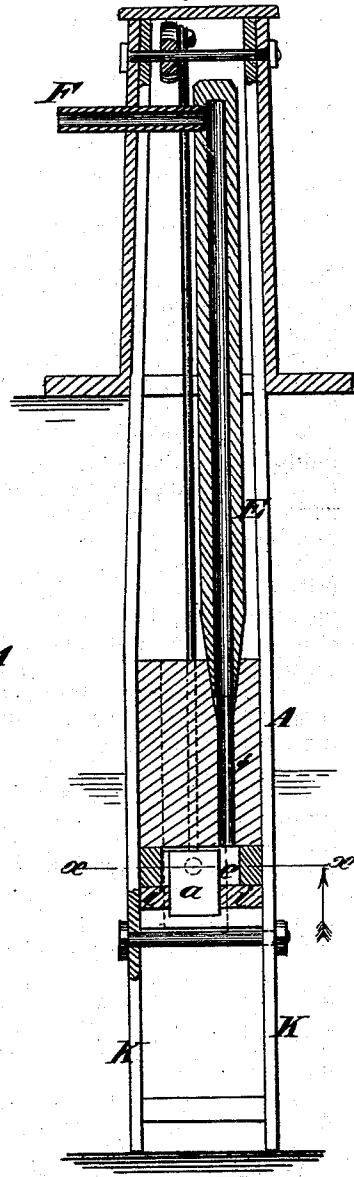


Fig. 3.

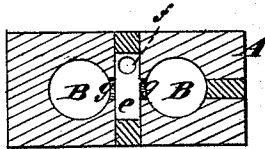
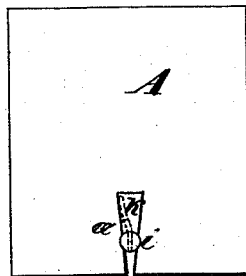


Fig. 4.



Witnesses.

John Becker
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UNITED STATES PATENT OFFICE.

EDWARD BUZBY, OF SHAMONG, NEW JERSEY.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **155,923**, dated October 13, 1874; application filed September 15, 1874.

To all whom it may concern:

Be it known that I, EDWARD BUZBY, of Shamong, in the county of Burlington and State of New Jersey, have invented an Improvement in Pumps, of which the following is a specification:

My invention consists in a double-cylinder pump, the cylinders of which have between them a discharge-valve common to both, and which cylinders consist of two parallel bores in a block of wood, and which pump, with its valves and other parts, as hereinafter more fully described, may be constructed with comparatively simple tools and little mechanical skill, and of material generally at hand in all localities.

The following is a description of my invention, reference being had to the accompanying drawing, in which similar letters indicate corresponding parts in the several figures.

Figure 1 is a vertical section of my improved pump. Fig. 2 is also a vertical section at right angles with Fig. 1. Fig. 3 is a section in the line *x x*, Fig. 2, looking in the direction of the arrow. Fig. 4 is a front view of the pump-body, showing the central discharge-valve *a* in dotted outline, through the plug *k*.

A is the pump-body, made of a single block of wood, in which are bored the cylinders *B B'*, and into which cylinders are fitted suitable pistons *C C*, connected with a pump handle, *b*, by suitable rods *D D*. *c c* are valve-seats, upon which are fitted the clapper-valves *d d*. These valve-seats may be made by bushing the cylinders *B B'* after boring, but are preferably made by boring the cylinders of a less diameter below *c c*, so as to form a shoulder. *e* is a dovetailed-formed valve-space, in which plays from side to side the flexible valve, preferably of leather or rubber, *a*. *E* is the pump-tube, provided with a spout, *F*. In the block of which the pump-body is made is bored a vertical cylindrical opening, *f*, communicating with the valve-space *e*, and this cylindrical opening forms a continuation of the bore in the pump-tube *E*, which latter is most conveniently a bored log tapered to fit into *f*, which is widened at the top to receive it. This vertical opening *f* is not in the same

plane with axes of the cylinders *B B'*, but is far enough forward or back of said plane to be out of the way of the valve *a*. Communicating with the dovetail-shaped space *e* is a cylindrical opening, *g*, from each of the cylinders *B B'*. This cylindrical opening *g* is made by boring into the pump-block through the vertical axis of the cylinder *B'*, and through the dovetail-shaped valve-space *e* into the cylinder *B*, the aperture thus formed between the cylinder *B'* and outside of the pump-body being afterward closed by the plug *h*. The valve *a* is fitted into a cylindrical plug of wood, forming a valve-stock, *i*, which is longitudinally slotted to receive it. The valve-stock *i* has a diameter somewhat greater than the width of the valve-space *e* at the point where *i* passes through it. The valve-space *e* is most easily made by sawing and chiseling out a dovetail-shaped piece from the bottom of *A*, having first bored a hole at *i* to receive the valve-stock. The valve *a* being fitted into the valve-stock *i*, the latter is then placed in position, as shown, and the aperture on each side of the pump-body between *i* and the top of *e*, and on each side of the valve *a*, is then closed by the plugs *k k*. The pump is supported by and secured to a suitable frame, *K*, and may be inclosed over the top by a suitable case, *L*, and is partially submerged, as shown in Figs. 1 and 2. When one of the pistons *C* is descending the valve *d* is thrown across the valve-space *e* and covers the aperture *g* on the side of the other cylinder, and liquid is forced up into *f* while the liquid rises in the other cylinder, the valve *c* opening to admit it.

I claim—

The pump-body *A*, composed of a single block of wood with two cylinder-bores side by side, an intervening valve-space, *e*, a vertical bore, *f*, meeting the said valve-space, and a transverse bore, *g*, and having the discharge-valve carried by a plug inserted through the block and through the valve-space *e*, the whole constructed substantially as herein described.

EDWARD BUZBY.

Witnesses:

WILLIAM B. SAVIDGE,
THOMAS W. DAWSON.